

CLAIMS

1. A temporary stent, comprising:

5 a first contractible and expandable stent body having a loosely-interlocked knitted structure formed by twisting at least one filament in a spiral fashion and being configured to be expanded to form a cylindrical shape as a normal state;

a first contractible and expandable proximal end configured to be expanded to form a tapered shape as a normal state;

a middle strut maintained in a contracted configuration;

10 a second contractible and expandable proximal end configured to be expanded to form a tapered shape as a normal state;

a second contractible and expandable stent body configured to be expanded to form a cylindrical shape as a normal state;

15 a third contractible and expandable proximal end configured to be expanded to form a tapered shape as a normal state; and

a strut, in serial order.

2. The temporary stent of claim 1, wherein the strut has a loosely-interlocked knitted structure formed by twisting at least one filament in a spiral fashion, and is maintained in its contracted configuration.

20 3. The temporary stent of claim 1, wherein the strut is a rod-shaped body formed of a resin material including polytetrafluoroethylene, polyolefin, polyester, polyurethane or polysiloxane.

4. The temporary stent of any one of claims 1-3, wherein the filament is formed of a shape-memory material such that the first and second stent bodies each can be expanded to
25 form cylindrical shapes as their normal state, the first, second and third proximal ends each

can be tapered as their normal state, and the middle strut can be maintained in a contracted configuration as a normal state.

5 5. The temporary stent of claim 1 or 2, wherein the filament is formed of a shape-memory material such that the first and second stent bodies each can be expanded to form cylindrical shapes as their normal state, the first, second and third proximal ends each can be tapered as their normal state, and the middle strut and the strut each can be maintained in their contracted configurations as their normal state.

10 6. The temporary stent of claim 4 or 5, wherein said shape-memory material includes Ni-Ti based shape-memory alloy, Cu-Al-Ni based shape-memory alloy or Cu-Zn-Al based shape-memory alloy.

7. The temporary stent of any one of claims 1-3, wherein the filament is formed of a metal wire including stainless steel, titanium, nickel or tantalum.

15 8. The temporary stent of any one of claims 1-3, wherein the filament is formed of a plastic wire or fiber reinforced plastic wire, including polytetrafluoroethylene, polyolefin, polyester, polyurethane or polysiloxane.

20 9. The temporary stent of any one of claims 1-8, wherein the first stent body has a length of 5 cm to 10 cm, the first proximal end has a length of 2 cm to 3 cm, the middle strut has a length of 4 cm to 6 cm, the second proximal end has a length of 2 cm to 3 cm, the second stent body has a length of 5 cm to 10 cm, the third proximal end has a length of 4 cm to 6 cm, and the strut has a length of 60 cm to 100 cm.

10. The temporary stent of any one of claims 1-9, contained in a pipe-shaped catheter.

11. A temporary stent-graft, comprising:

the stent of any one of claims 1-10; and

25 a cylindrically shaped graft configured to cover the stent in the area ranging

between the first stent body and the second stent body.

12. The temporary stent-graft of claim 11, wherein a distal end of the graft is coupled with a distal end of the stent by a connecting member in a manner that can be reversed.

5 13. The temporary stent-graft of claim 12, wherein the distal end of the stent is provided with a loop formed by turning around a plurality of filaments arranged at regular intervals, putting two filaments together end on end, and twisting a turn-around part of the filament.

10 14. The temporary stent-graft of claim 12 or 13, wherein the connecting member is a suture.

15. The temporary stent-graft of any one of claims 11-14, contained in a pipe-shaped catheter.